

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: io LED

Report Number: P315289

Luminaire Tested: **LDA2B05FLD2WD010 PIN1MB**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P315289  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-908-15)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDA2B05FLD2WD010 PIN1MB  
Description: PORTFOLIO 2IN ADJ 500 LUMEN LED LUMINAIRE WITH FLOOD OPTIC AND 2in Adj PinHole, Black oculus black finish  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 476.6 lumens  
Efficiency: N/A  
Efficacy: 68.1 lumens/watt  
Spacing Criteria (0/90/45): 2.92 / 0.6 / 1.34  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

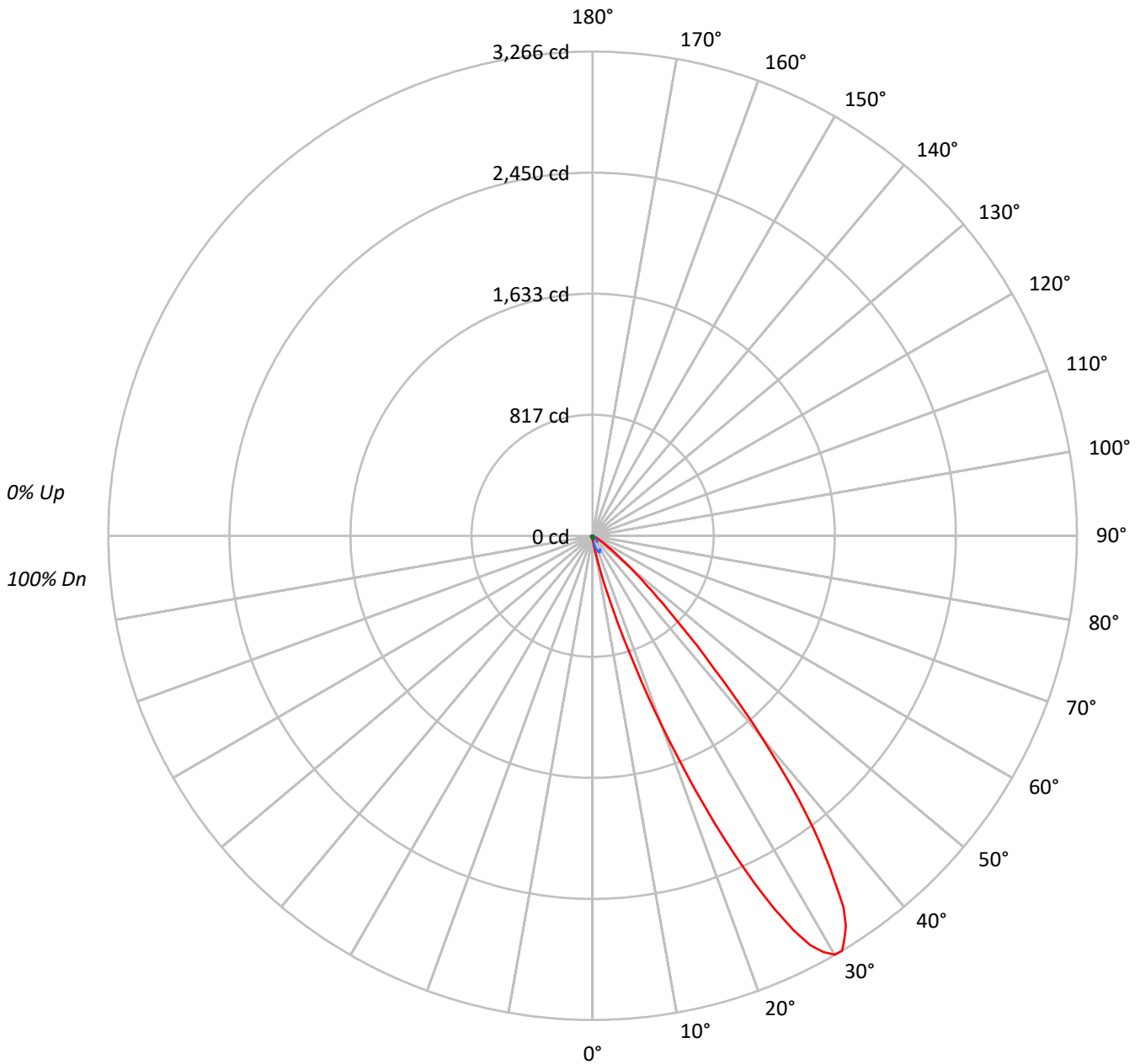
Input Watts (W): 7  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P315289

CATALOG NUMBER: LDA2B05FLD2WD010 PIN1MB

### Luminous Intensity Polar Plot





TEST NUMBER: P315289

CATALOG NUMBER: LDA2B05FLD2WD010 PIN1MB

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |  |  |  |  |   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|--|--|--|--|---|
| RF  | 20  |     |     |     |     | 20  |     |     |     |     | 20  |     |     |     |     | 20  |     |     |    |    | 20 |  |  |  |  |   |
| RC  | 80  |     |     |     |     | 70  |     |     |     |     | 50  |     |     |     |     | 30  |     |     |    |    | 10 |  |  |  |  | 0 |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30 | 10 | 0  |  |  |  |  |   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |  |  |  |  |   |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |    |  |  |  |  |   |
| 1   | 112 | 108 | 105 | 102 | 109 | 106 | 103 | 101 | 102 | 100 | 97  | 98  | 96  | 95  | 95  | 93  | 92  | 90  |    |    |    |  |  |  |  |   |
| 2   | 104 | 98  | 93  | 89  | 102 | 96  | 92  | 88  | 93  | 89  | 86  | 90  | 87  | 84  | 87  | 84  | 82  | 80  |    |    |    |  |  |  |  |   |
| 3   | 97  | 89  | 82  | 77  | 95  | 87  | 82  | 77  | 85  | 80  | 75  | 82  | 78  | 74  | 80  | 76  | 73  | 71  |    |    |    |  |  |  |  |   |
| 4   | 90  | 81  | 74  | 68  | 88  | 79  | 73  | 68  | 77  | 71  | 67  | 75  | 70  | 66  | 73  | 69  | 65  | 63  |    |    |    |  |  |  |  |   |
| 5   | 84  | 73  | 66  | 60  | 82  | 72  | 65  | 60  | 70  | 64  | 59  | 68  | 63  | 59  | 67  | 62  | 58  | 56  |    |    |    |  |  |  |  |   |
| 6   | 78  | 67  | 59  | 53  | 76  | 66  | 58  | 53  | 64  | 58  | 53  | 62  | 57  | 52  | 61  | 56  | 52  | 50  |    |    |    |  |  |  |  |   |
| 7   | 72  | 61  | 53  | 48  | 71  | 60  | 53  | 47  | 58  | 52  | 47  | 57  | 51  | 47  | 56  | 51  | 47  | 45  |    |    |    |  |  |  |  |   |
| 8   | 67  | 55  | 48  | 43  | 66  | 55  | 47  | 42  | 53  | 47  | 42  | 52  | 46  | 42  | 51  | 46  | 42  | 40  |    |    |    |  |  |  |  |   |
| 9   | 63  | 51  | 43  | 38  | 61  | 50  | 43  | 38  | 49  | 42  | 38  | 48  | 42  | 38  | 47  | 41  | 37  | 36  |    |    |    |  |  |  |  |   |
| 10  | 59  | 46  | 39  | 34  | 57  | 46  | 39  | 34  | 45  | 38  | 34  | 44  | 38  | 34  | 43  | 38  | 34  | 32  |    |    |    |  |  |  |  |   |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°      | 90°   | 180°  |
|-----|---------|-------|-------|
| 0°  | 10015   | 10015 | 10015 |
| 5°  | 22385   | 10351 | 8073  |
| 10° | 59866   | 6463  | 2304  |
| 15° | 235616  | 8325  | 5414  |
| 20° | 712826  | 5093  | 4200  |
| 25° | 1410666 | 4355  | 3756  |
| 30° | 1858769 | 2621  | 4557  |
| 35° | 1715183 | 3794  | 5481  |
| 40° | 1142459 | 3285  | 7535  |
| 45° | 538848  | 1186  | 3210  |
| 50° | 237629  | 4375  | 9901  |
| 55° | 96595   | 0     | 10064 |
| 60° | 40061   | 2861  | 8979  |
| 65° | 13659   | 3385  | 6654  |
| 70° | 11540   | 6635  | 16877 |
| 75° | 6481    | 9722  | 22303 |
| 80° | 0       | 4830  | 9660  |
| 85° | 6227    | 6227  | 32266 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 2.8    | 0.6       |
| 10°-20°   | 29.2   | 6.1       |
| 20°-30°   | 149.9  | 31.5      |
| 30°-40°   | 192.0  | 40.3      |
| 40°-50°   | 73.8   | 15.5      |
| 50°-60°   | 15.0   | 3.1       |
| 60°-70°   | 5.1    | 1.1       |
| 70°-80°   | 5.9    | 1.2       |
| 80°-90°   | 3.0    | 0.6       |
| 90°-100°  | 0.0    | 0.0       |
| 100°-110° | 0.0    | 0.0       |
| 110°-120° | 0.0    | 0.0       |
| 120°-130° | 0.0    | 0.0       |
| 130°-140° | 0.0    | 0.0       |
| 140°-150° | 0.0    | 0.0       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 181.8  | 38.2      |
| 0°-40°    | 373.8  | 78.4      |
| 0°-60°    | 462.6  | 97.1      |
| 0°-90°    | 476.6  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 476.6  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 20   | 20  | 20  | 20   | 20   |      |
| 5°  | 45   | 37  | 21  | 15   | 16   | 7    |
| 15° | 461  | 90  | 16  | 10   | 11   | 177  |
| 25° | 2591 | 117 | 8   | 6    | 7    | 1183 |
| 35° | 2848 | 61  | 6   | 5    | 9    | 1702 |
| 45° | 772  | 15  | 2   | 1    | 5    | 664  |
| 55° | 112  | 3   | 0   | 2    | 12   | 116  |
| 65° | 12   | 4   | 3   | 4    | 6    | 16   |
| 75° | 3    | 6   | 5   | 9    | 12   | 5    |
| 85° | 1    | 4   | 1   | 5    | 6    | 1    |
| 90° | 0    | 0   | 0   | 0    | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 2.5°   | 5°     | 7.5°   | 10°    | 12.5°  | 15°    | 17.5°  | 22.5°  | 45°   | 67.5° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|
| 0°    | 20.3   | 20.3   | 20.3   | 20.3   | 20.3   | 20.3   | 20.3   | 20.3   | 20.3   | 20.3  | 20.3  |
| 2.5°  | 30.0   | 26.0   | 27.2   | 23.2   | 25.4   | 26.0   | 21.4   | 28.3   | 25.4   | 26.6  | 23.2  |
| 5°    | 45.2   | 48.6   | 44.6   | 42.9   | 41.7   | 42.9   | 41.7   | 43.4   | 42.3   | 37.2  | 26.6  |
| 7.5°  | 75.5   | 68.9   | 68.9   | 66.6   | 68.3   | 67.7   | 64.9   | 66.6   | 62.6   | 45.2  | 30.6  |
| 10°   | 119.5  | 112.9  | 112.3  | 110.6  | 110.0  | 104.9  | 102.0  | 99.8   | 91.5   | 53.5  | 27.7  |
| 12.5° | 234.1  | 228.4  | 224.4  | 214.4  | 207.5  | 203.5  | 188.4  | 180.4  | 156.6  | 79.5  | 35.4  |
| 15°   | 461.3  | 431.9  | 439.3  | 407.0  | 383.3  | 367.6  | 336.1  | 308.4  | 251.5  | 89.8  | 34.3  |
| 17.5° | 816.4  | 787.8  | 768.6  | 733.5  | 685.2  | 643.4  | 581.4  | 519.9  | 404.2  | 102.0 | 32.0  |
| 20°   | 1357.7 | 1312.6 | 1272.5 | 1212.2 | 1119.3 | 1039.0 | 929.8  | 812.4  | 601.7  | 116.6 | 28.9  |
| 21°   | 1595.5 | 1560.7 | 1514.4 | 1434.9 | 1326.6 | 1219.1 | 1088.2 | 946.7  | 685.7  | 117.8 | 26.0  |
| 22°   | 1843.7 | 1821.1 | 1760.2 | 1669.0 | 1542.7 | 1414.6 | 1254.0 | 1098.5 | 775.2  | 119.5 | 24.9  |
| 23°   | 2102.1 | 2078.3 | 2009.4 | 1905.1 | 1763.0 | 1608.1 | 1420.9 | 1236.5 | 859.2  | 121.8 | 24.3  |
| 24°   | 2355.0 | 2328.7 | 2251.8 | 2135.2 | 1974.0 | 1795.9 | 1584.4 | 1370.6 | 937.5  | 120.6 | 25.4  |
| 25°   | 2591.4 | 2554.8 | 2473.6 | 2344.4 | 2167.5 | 1967.7 | 1734.5 | 1486.4 | 1006.4 | 117.2 | 21.4  |
| 26°   | 2802.4 | 2760.6 | 2673.2 | 2532.2 | 2338.7 | 2122.3 | 1859.7 | 1593.8 | 1057.3 | 114.3 | 20.3  |
| 27°   | 2985.6 | 2933.0 | 2839.5 | 2691.7 | 2484.2 | 2245.3 | 1966.6 | 1677.9 | 1102.2 | 110.0 | 16.3  |
| 28°   | 3128.2 | 3067.9 | 2973.0 | 2816.9 | 2597.7 | 2341.0 | 2045.2 | 1730.5 | 1128.8 | 110.6 | 18.6  |
| 29°   | 3210.5 | 3164.2 | 3061.0 | 2897.5 | 2666.9 | 2396.2 | 2086.6 | 1759.6 | 1133.9 | 102.0 | 17.4  |
| 30°   | 3262.8 | 3211.1 | 3105.1 | 2934.1 | 2693.4 | 2408.8 | 2091.8 | 1754.2 | 1118.8 | 95.8  | 16.3  |
| 31°   | 3266.3 | 3212.2 | 3104.5 | 2927.5 | 2683.2 | 2387.9 | 2063.2 | 1721.9 | 1085.9 | 89.2  | 13.4  |
| 32°   | 3204.8 | 3163.1 | 3057.0 | 2874.4 | 2627.4 | 2330.4 | 2001.7 | 1667.3 | 1034.2 | 76.0  | 9.1   |
| 33°   | 3135.4 | 3084.8 | 2979.3 | 2794.9 | 2550.2 | 2251.8 | 1913.1 | 1593.8 | 980.4  | 74.9  | 11.7  |
| 34°   | 3027.3 | 2966.4 | 2862.7 | 2681.2 | 2443.1 | 2139.8 | 1807.6 | 1495.8 | 911.8  | 68.3  | 11.1  |
| 35°   | 2847.8 | 2815.2 | 2710.3 | 2531.1 | 2299.9 | 2005.4 | 1680.7 | 1388.0 | 838.9  | 60.9  | 8.0   |
| 36°   | 2668.0 | 2628.0 | 2528.8 | 2355.6 | 2136.4 | 1845.4 | 1537.5 | 1265.1 | 756.6  | 51.7  | 6.3   |
| 37°   | 2477.9 | 2425.6 | 2335.3 | 2165.8 | 1936.8 | 1685.9 | 1400.0 | 1147.9 | 689.4  | 54.6  | 8.6   |
| 38°   | 2256.4 | 2239.0 | 2120.1 | 1962.3 | 1750.8 | 1513.8 | 1252.3 | 1024.4 | 615.1  | 50.9  | 14.0  |
| 39°   | 2012.9 | 2001.1 | 1882.5 | 1738.8 | 1549.0 | 1331.1 | 1101.0 | 896.4  | 540.8  | 37.2  | 4.6   |
| 40°   | 1773.9 | 1740.5 | 1656.4 | 1525.8 | 1360.6 | 1164.8 | 965.8  | 787.2  | 476.5  | 36.6  | 9.1   |
| 42.5° | 1202.2 | 1212.8 | 1121.9 | 1028.4 | 922.4  | 789.5  | 656.9  | 539.7  | 333.3  | 27.2  | 5.7   |
| 45°   | 772.3  | 774.6  | 734.0  | 661.4  | 592.0  | 509.1  | 421.6  | 351.3  | 214.9  | 15.1  | 1.7   |
| 47.5° | 491.6  | 490.5  | 464.5  | 422.8  | 377.3  | 328.7  | 274.1  | 229.5  | 139.2  | 11.7  | 5.1   |
| 50°   | 309.6  | 308.4  | 292.1  | 265.5  | 240.1  | 208.1  | 173.8  | 147.8  | 88.0   | 14.0  | 5.7   |
| 51°   | 251.5  | 253.3  | 239.5  | 212.7  | 192.9  | 162.4  | 138.6  | 117.8  | 68.9   | 9.7   | 5.1   |
| 52°   | 207.5  | 206.4  | 197.8  | 175.2  | 158.9  | 132.6  | 112.9  | 96.3   | 57.5   | 8.6   | 2.3   |
| 53°   | 166.9  | 167.5  | 158.9  | 141.5  | 125.8  | 106.0  | 90.3   | 74.9   | 41.2   | 6.3   | 1.7   |
| 54°   | 132.1  | 130.9  | 128.1  | 111.2  | 101.5  | 84.0   | 70.6   | 57.5   | 35.4   | 1.1   | 0.0   |
| 55°   | 112.3  | 110.6  | 106.6  | 92.0   | 82.3   | 69.5   | 56.3   | 49.2   | 30.6   | 2.9   | 0.0   |
| 57.5° | 64.9   | 64.9   | 62.6   | 54.6   | 48.0   | 42.9   | 34.3   | 32.0   | 15.7   | 2.9   | 0.0   |
| 60°   | 40.6   | 35.4   | 39.4   | 33.7   | 26.6   | 23.7   | 19.7   | 18.0   | 13.4   | 5.1   | 1.1   |
| 61°   | 33.7   | 27.2   | 26.6   | 24.9   | 23.2   | 15.7   | 13.4   | 14.6   | 8.6    | 1.7   | 1.1   |
| 62°   | 24.3   | 21.4   | 23.2   | 19.7   | 17.4   | 12.3   | 11.1   | 10.6   | 5.1    | 2.3   | 2.9   |
| 63°   | 22.0   | 19.7   | 19.2   | 14.6   | 12.9   | 12.9   | 9.7    | 9.1    | 6.3    | 4.6   | 2.3   |



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**CANDELA DISTRIBUTION (continued):**

|       | 0°   | 2.5° | 5°  | 7.5° | 10° | 12.5° | 15° | 17.5° | 22.5° | 45° | 67.5° |
|-------|------|------|-----|------|-----|-------|-----|-------|-------|-----|-------|
| 66°   | 11.7 | 9.7  | 8.6 | 9.7  | 5.7 | 7.4   | 2.9 | 8.0   | 1.7   | 2.9 | 1.7   |
| 67.5° | 9.1  | 5.7  | 5.1 | 6.3  | 4.0 | 2.9   | 4.0 | 5.1   | 1.7   | 2.9 | 4.0   |
| 70°   | 8.0  | 4.0  | 5.7 | 5.1  | 4.0 | 5.1   | 5.7 | 5.7   | 1.7   | 5.7 | 5.1   |
| 72.5° | 8.0  | 5.1  | 2.9 | 2.3  | 2.3 | 2.3   | 2.3 | 2.3   | 3.4   | 8.0 | 6.3   |
| 75°   | 3.4  | 3.4  | 1.7 | 4.0  | 2.3 | 3.4   | 2.3 | 5.7   | 2.3   | 6.3 | 5.1   |
| 77.5° | 2.3  | 2.9  | 0.0 | 2.9  | 0.0 | 0.0   | 1.7 | 4.0   | 1.7   | 4.6 | 5.7   |
| 80°   | 0.0  | 2.9  | 1.7 | 0.0  | 1.1 | 1.7   | 0.0 | 0.6   | 1.1   | 5.1 | 2.3   |
| 82.5° | 1.1  | 1.7  | 2.3 | 1.1  | 1.1 | 0.0   | 0.0 | 0.0   | 0.0   | 3.4 | 2.9   |
| 85°   | 1.1  | 2.3  | 0.0 | 0.6  | 2.3 | 1.1   | 0.6 | 2.9   | 1.1   | 4.0 | 4.6   |
| 87.5° | 0.0  | 1.1  | 1.1 | 0.0  | 1.7 | 0.0   | 1.7 | 1.1   | 0.0   | 3.4 | 1.7   |
| 90°   | 0.0  | 0.0  | 0.0 | 0.0  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0   | 0.0 | 0.0   |



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**CANDELA DISTRIBUTION (continued):**

|       | 90°  | 112.5° | 135° | 157.5° | 180° |
|-------|------|--------|------|--------|------|
| 0°    | 20.3 | 20.3   | 20.3 | 20.3   | 20.3 |
| 2.5°  | 17.4 | 15.7   | 13.4 | 16.9   | 14.0 |
| 5°    | 20.9 | 19.2   | 15.1 | 18.0   | 16.3 |
| 7.5°  | 21.4 | 18.0   | 15.7 | 14.6   | 16.3 |
| 10°   | 12.9 | 8.6    | 6.3  | 8.6    | 4.6  |
| 12.5° | 21.4 | 15.1   | 14.0 | 15.7   | 17.4 |
| 15°   | 16.3 | 9.7    | 9.7  | 7.4    | 10.6 |
| 17.5° | 9.1  | 7.4    | 6.9  | 9.1    | 10.6 |
| 20°   | 9.7  | 6.3    | 5.1  | 8.6    | 8.0  |
| 21°   | 8.6  | 2.3    | 6.9  | 6.9    | 8.0  |
| 22°   | 12.3 | 5.7    | 6.9  | 11.1   | 11.7 |
| 23°   | 8.0  | 6.3    | 5.1  | 6.9    | 9.1  |
| 24°   | 11.7 | 6.9    | 6.3  | 8.6    | 12.9 |
| 25°   | 8.0  | 6.3    | 6.3  | 8.0    | 6.9  |
| 26°   | 4.6  | 6.3    | 4.6  | 6.9    | 5.7  |
| 27°   | 3.4  | 5.7    | 3.4  | 5.1    | 6.9  |
| 28°   | 7.4  | 9.1    | 8.6  | 9.1    | 8.0  |
| 29°   | 8.0  | 9.7    | 8.0  | 12.3   | 9.1  |
| 30°   | 4.6  | 8.6    | 4.0  | 9.1    | 8.0  |
| 31°   | 4.6  | 6.3    | 2.9  | 9.1    | 8.0  |
| 32°   | 0.6  | 3.4    | 1.7  | 3.4    | 3.4  |
| 33°   | 3.4  | 4.0    | 4.6  | 7.4    | 5.7  |
| 34°   | 5.7  | 6.9    | 4.6  | 8.0    | 6.9  |
| 35°   | 6.3  | 3.4    | 5.1  | 8.6    | 9.1  |
| 36°   | 1.7  | 1.7    | 2.9  | 6.9    | 2.3  |
| 37°   | 3.4  | 9.7    | 6.9  | 11.7   | 6.9  |
| 38°   | 5.7  | 11.7   | 11.1 | 14.6   | 11.7 |
| 39°   | 1.1  | 3.4    | 4.0  | 8.0    | 8.0  |
| 40°   | 5.1  | 8.6    | 6.3  | 11.7   | 11.7 |
| 42.5° | 4.0  | 6.3    | 4.6  | 9.7    | 8.0  |
| 45°   | 1.7  | 1.7    | 1.1  | 6.3    | 4.6  |
| 47.5° | 2.9  | 2.9    | 5.1  | 8.0    | 14.0 |
| 50°   | 5.7  | 5.7    | 7.4  | 13.4   | 12.9 |
| 51°   | 3.4  | 2.9    | 4.0  | 9.1    | 11.7 |
| 52°   | 2.9  | 4.0    | 4.0  | 9.1    | 9.1  |
| 53°   | 1.1  | 0.0    | 0.0  | 6.9    | 5.7  |
| 54°   | 1.1  | 0.6    | 1.7  | 5.1    | 8.0  |
| 55°   | 0.0  | 2.9    | 2.3  | 10.6   | 11.7 |
| 57.5° | 0.6  | 4.6    | 2.3  | 7.4    | 9.1  |
| 60°   | 2.9  | 3.4    | 6.3  | 7.4    | 9.1  |
| 61°   | 0.0  | 2.9    | 2.9  | 6.9    | 8.0  |
| 62°   | 0.0  | 2.3    | 5.1  | 6.3    | 8.0  |
| 63°   | 2.9  | 3.4    | 4.6  | 7.4    | 9.1  |





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CATALOG NUMBER: LDA2B05FLD2WD010 PIN1MB

**CANDELA DISTRIBUTION (continued):**

|       | 90° | 112.5° | 135° | 157.5° | 180° |
|-------|-----|--------|------|--------|------|
| 66°   | 1.7 | 4.6    | 5.7  | 7.4    | 6.9  |
| 67.5° | 3.4 | 4.0    | 3.4  | 9.7    | 11.7 |
| 70°   | 4.6 | 7.4    | 8.0  | 6.9    | 11.7 |
| 72.5° | 2.9 | 4.0    | 5.7  | 10.6   | 11.7 |
| 75°   | 5.1 | 5.7    | 8.6  | 9.7    | 11.7 |
| 77.5° | 4.0 | 5.7    | 5.7  | 6.3    | 11.7 |
| 80°   | 1.7 | 5.1    | 5.7  | 6.3    | 3.4  |
| 82.5° | 2.3 | 3.4    | 2.3  | 6.3    | 4.6  |
| 85°   | 1.1 | 5.1    | 4.6  | 5.7    | 5.7  |
| 87.5° | 1.7 | 2.9    | 2.9  | 5.1    | 3.4  |
| 90°   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  |



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— 0°-180°    - - 45°-225°    - - - - 90°-270°







|     |      |      |      |      |     |     |     |     |     |     |     |
|-----|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|
| 64° | 12.9 | 13.4 | 12.9 | 9.1  | 6.9 | 6.3 | 4.6 | 8.0 | 2.3 | 2.3 | 0.0 |
| 65° | 11.7 | 12.9 | 9.7  | 11.1 | 7.4 | 6.9 | 4.0 | 8.0 | 1.1 | 4.0 | 2.9 |







|     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|
| 64° | 1.7 | 2.9 | 2.9 | 5.1 | 8.0 |
| 65° | 2.9 | 4.0 | 4.0 | 7.4 | 5.7 |



(END OF REPORT)